Remarks:

The amendments and remarks presented herein are believed to be fully responsive to the Office Action mailed February 22, 2005, the period for response being extended to June 22, 2005 via the enclosed Petition and Fee for a one month extension of time.

Claims 1, 3-21, 23-29 and 32-38 are pending in the application. Claims 2, 22, 30 and 31 have been canceled herein without prejudice. Claims 1, 3, 5-7, 13, 14, 20, 21, 23, 24, 25, 27-29 and 32 have been amended herein. The amendments are fully supported in the specification and drawings as originally filed. No new matter has been added by the amendments.

INFORMATION DISCLOSURE STATEMENT

An Information Disclosure Statement and fee is submitted herewith to submit drawings of a hinge that was on sale more than one year prior to the filing date of the present application. Applicants request that the Examiner consider the attached hinge drawings and initial the attached PTO form PTO/SB/08A to confirm consideration of the hinge drawings.

TELEPHONE INTERVIEW CONDUCTED JUNE 3, 2005

The undersigned wishes to express his gratitude to Examiner Kyle for the courtesies extended to the undersigned attorney and the assignee's representative and co-inventor of the claimed invention, Mr. Robert Alt, during the telephone interview conducted on June 3, 2005. During the interview, the undersigned and Mr. Alt were provided the opportunity to discuss the nature of Applicants' invention and the manner in which it distinguishes over the cited prior art references, namely, Wood, Jr. et al, U.S. Patent No. 5,611,114. During the interview, it was agreed that the proposed amendments appear to overcome the initial rejections under 35 U.S.C. §102(b). Examiner Kyle requested that the Applicants submit a discussion of the differences between the claimed invention and the

Wood patent and the benefits achieved by the claimed invention when responding to the Office Action.

CLAIM REJECTIONS

Claims 1-9, 12-16, 22, 23 and 26-38 were rejected under 35 U.S.C. §102(b) as being anticipated by Wood, Jr. et al., U.S. Patent No. 5,611,114 ("Wood"). Claims 10, 11 and 17-21 were rejected under 35 U.S.C. §103(a) as being unpatentable over Wood. Claim 24 was rejected under 35 U.S.C. §103(a) as being unpatentable over Wood, in view of Grass, U.S. Patent No. 4,400,848, while claim 25 was rejected under 35 U.S.C. §103(a) as being unpatentable over Wood, in view of Bobbowski, U.S. Patent No. 5,062,181.

Applicants respectfully traverse the rejections for the reasons set forth below.

Independent claim 1 has been amended to clarify that the panel attachment plate, the body attachment plate and the intermediate member each comprise stamped metallic plates or members having first and second portions arranged at an angle relative to one another. The first and second portions of the intermediate member comprise a generally U-shaped cross section and have opposite sidewalls and a center flange extending between said opposite sidewalls. The intermediate member is pivotably attached to the body attachment plate at a junction of the first and second portions.

Independent claim 13 has been amended to clarify that the body attachment plate comprises a generally planar plate portion and a pair of raised flanges along an edge region of the plate portion. The body attachment plate has a hinge portion, which comprises a pair of opposed flanges extending generally transverse to the raised flanges. The raised flanges and the opposed flanges extend generally vertically when the plate portion is generally horizontal. The intermediate member is pivotably attached to the body attachment plate via a pivot member extending through the hinge portion and the intermediate member. The intermediate member comprises a stamped metallic member.

Independent claim 23 has been amended to clarify that the intermediate member is provided by stamping a metallic sheet. The stamped intermediate member comprises first and second leg portions extending at an angle to one another, with the first and second leg portions comprising a generally U-shaped cross section and having opposite sidewalls and a center flange extending between the opposite sidewalls. The intermediate member is pivotably attached to the body attachment plate generally at an apex of the first and second leg portions. The panel attachment plate is pivotably attached to the intermediate member at an end portion of the second leg portion. A stop portion is formed at the second leg portion of the intermediate member to define a stop. The intermediate member and the stop are stamped to have a selected one of at least two forms to define the desired stopping position of the panel attachment plate with respect to the intermediate member at a respective one of at least two orientations.

Independent claim 29 has been amended to clarify that the body attachment plate includes a plate portion adapted to be secured to a vehicle body and a pair of raised flanges, each having a first flange portion and a second flange portion. The first flange portion extends generally transversely from the plate portion and at least partially along an edge portion of the plate portion. The second flange portion extends generally transversely from the plate portion and at an angle to the first flange portion. The second flange portions are spaced apart and oppose one another and cooperate to define a hinge portion of the body attachment plate. The raised flanges provide structural support to the plate portion. The intermediate member is pivotably attached to the body attachment plate at the hinge portion via a pivot member extending through the second flange portions and through the intermediate member.

Applicants respectfully submit that Wood does not disclose, teach or suggest the hinge of the present invention, particularly as set forth in independent claims 1, 13, 23 and 29, and in the claims depending therefrom. With respect to the rejection of independent claim 1, Wood does not disclose, teach or suggest a hinge having a stamped intermediate member

having first and second portions arranged at an angle relative to one another, with the first and second portions comprising a generally U-shaped cross section and having opposite sidewalls and a center flange extending between the sidewalls. To the contrary, Wood discloses a hinge with an L-shaped, monolithic, formed metal support member, which is a solid L-shaped member that is manufactured by forging, extruding, casting, machining or powder metallurgical techniques. The formed metal support member thus is not a stamped member and does not include sidewalls and a center flange. This is clearly shown in Figure 3 of Wood, which is a sectional view of the hinge, showing the solid L-shaped metal support member.

Although the Examiner rejected the concept of stamping the intermediate member when rejecting claim 24 in view of the combination of Wood and Grass, Applicants submit that the process of stamping the intermediate member is not the equivalent of casting, machining or extruding or the like of the L-shaped support member of Wood, nor would it be obvious to form the solid L-shaped support member of Wood by stamping sheet metal. By stamping the intermediate member of the present invention, the hinge of the present invention achieves a substantial decrease in the cost and weight of the hinge due to a substantial reduction in the amount of steel or aluminum or other metallic material to make the part and a substantial reduction in the labor necessary to make the part. The stamped intermediate member of the present invention, particularly when combined with the raised flange on the body attachment plate, provides at least as much strength as the solid L-shaped formed support member of Wood, yet has considerably less material and therefore weight, both of which significantly impact the cost and fuel efficiency of the vehicle on which the hinge is implemented (two factors that are significant to the original equipment manufacturer in selecting designs for use on vehicles), and, thus, is a substantial improvement over the Wood design. Also, the commercial embodiment of the claimed invention has achieved substantially greater reliability and robustness over competitors' products and has been successfully used on production vehicles with lift gates of considerable weight and for which other suppliers have been unable to design and manufacture a hinge that could support such gates and also meet the crash requirements of Motor Vehicle Safety Standard (MVSS) 206.

Also, because the intermediate member of the present invention is a stamped component, the stops (that limit pivotal movement of the intermediate member relative to the body attachment plate or the panel attachment plate) may be readily altered or changed via a change in the die details of the stamping tool. This allows the hinge of the present invention to be readily adapted for various vehicle applications (which may desire or require a different range of pivotal movement between the intermediate member and one or both plates), without incurring the great expense of having to design and build all new tools and dies and/or new molds for manufacturing new components. The modification of the degree of opening affected by the hinge can thus be accomplished through simple changing of die details. Thus, and as noted below, lift gate hinges for two or more different vehicle platforms can be manufactured from a common set of dies, with the only changes required being to remove and replace details in the common set of dies. The present invention thus is highly suitable for various vehicle applications and can achieve substantial savings due to the relatively inexpensive adjustments of the die details to achieve different stops on the intermediate member to provide the desired stopping position of the panel attachment plate relative to the intermediate member.

Because of the L-shaped form of the intermediate member of the present invention, the intermediate member is not readily stamped from a piece of sheet metal and, thus, is not an obvious variation of the Wood support member. Moreover, the L-shaped form of Wood cannot be made as a stamping given the thickness of the material required, which is why the specification of Wood specifically states that the member must be forged, extruded, cast, machined or formed via powder metallurgical techniques. Contrary to the Wood hinge, the present invention provides a stamped L-shaped intermediate member that has a U-shaped cross section with sidewalls and a center flange extending between the sidewalls to provide enhanced strength, with reduced cost and weight associated with the component. Applicants submit that Wood, either alone or in combination with any other prior art reference of record, does not disclose, teach, suggest or render obvious the hinge of the present invention, particularly as set forth in independent claim 1 and in the claims depending therefrom.

Reconsideration and withdrawal of the rejection of claims 1 and 3-12 is respectfully requested.

With respect to the rejection of independent claim 13, Applicants submit that Wood does not disclose a hinge that has a pair of raised flanges along an edge region of a plate portion of a body attachment plate, and a pair of opposed flanges extending generally transverse to the raised flanges to define a hinged portion at the body attachment plate. To the contrary, Wood discloses a flat hinge plate (14) that has a pair of barrel segments (22a, 22b). The barrel segments do not extend generally vertically when the plate portion is generally horizontal, nor do they include a pair of opposed flanges that extend generally transverse to a pair of raised flanges along an edge portion of the plate portion. The barrel segments are simply curls in the sheet metal and are used for the purpose of inserting a pin to permit the hinge to function. The flanges of the present invention add strength to the hinge, while the barrel segments of Wood may set up a potential area of failure because of the opportunity for the curls to unwind under load. In stark contrast to Wood, the raised flanges and opposed flanges of the body attachment plate of the hinge of the present invention extend generally vertically when the plate portion is generally horizontal (as can be seen, for example, with reference to Figures 14 and 16 of the present application). This arrangement provides substantially enhanced strength to the hinge, and allows the body attachment plate to be formed from stamped sheet metal, and does not require further processing to form the barrel segments of the hinge of Wood. Therefore, Applicants respectfully submit that Wood, either alone or in combination with any other cited prior art of record, does not disclose, teach, suggest or render obvious the hinge of the present invention, particularly as set forth in independent claim 13 and in the claims depending therefrom. Reconsideration and withdrawal of the rejection of claims 13-21 is respectfully requested.

With respect to the rejection of independent claim 29, Applicants submit that Wood, either alone or in combination with any other prior art reference of record, does not disclose, teach or suggest the hinge or the present invention, for at least all of the reasons set forth above with respect to the rejection of independent claim 13. Reconsideration and withdrawal

of the rejection of claims 29-38 is also respectfully requested for all of the reasons set forth above.

With respect to the rejection of independent claim 23, Applicants submit that Wood does not disclose, teach or suggest the method for making an automobile hinge as claimed in claim 23 for all of the reasons set forth above with respect to the rejection of independent claim 1. Moreover, Applicants submit that Wood does not disclose the step of forming a stop portion at the intermediate member to define a stop, and stamping the intermediate member to have a selected one of at least two forms to define the stopping position of the panel attachment plate or the body attachment plate with respect to the intermediate member at a respective one of at least two orientations. The stop of the intermediate member of the present invention thus may be readily adapted to two or more forms or shapes or sizes via a single change in the die details. To the contrary, Wood discloses a stop member (16c) that is integral with the L-shaped support member and that limits pivotal movement of the support member to the second hinge plate. The selection of the size of the stop member of Wood, and its placement may control the degree of restriction of pivotal motion of the L-shaped support member. However, and as can be seen in Figure 3 of Wood, the stop member (16c) extends along the width of the solid, cast or extruded or forged L-shaped support member, whereby selection of the size and placement of the stop member and any change to the size and placement of the stop member would require the design and build of entirely new molds to form or extrude the solid L-shaped support member.

Contrary to the teachings of Wood, and because the panel attachment plate and the intermediate member of the present invention may be formed from a stamped metallic sheet, the stop portion or portions of the intermediate member of the present invention may be readily formed and stamped to the desired size or shape or form to selectively limit the range of pivotal movement accordingly. This may be done by adjusting the stamping tool, such as by simply exchanging die details that would change the degree of opening of the lift gate as desired by the customer, such that the same tooling can be used to make different intermediate members for different hinge applications. As discussed above, this allows the

stops on the intermediate member of the present invention to be readily adjusted at a substantially reduced cost over what it would cost to adjust the stop of the Wood hinge, so that the hinge design of the present invention may be readily adjusted or adapted to accommodate different vehicle applications. In other words, the present invention allows many different hinges for different platform vehicles to be made with the same tools. Therefore, Applicants submit that Wood, does not disclose, teach or suggest the hinge of the present invention, particularly as set forth in independent claim 23 and in the claims depending therefrom. Reconsideration and withdrawal of the rejection of claims 23-28 is respectfully requested.

Accordingly, Applicants respectfully submit that Wood, either alone or in combination with any other prior art reference cited of record, does not disclose, teach, suggest nor render obvious the hinge of the present invention, particularly as set forth in independent claims 1, 13, 22 and 29, and in the claims depending therefrom. Reconsideration and withdrawal of the rejection of independent claims 1, 13, 23 and 29, and of the claims depending therefrom, is thus respectfully requested.

Claims 1, 3-21, 23-29 and 32-38 are pending in the application. It is respectfully submitted that claims 1-21, 23-29 and 32-38 are in condition for allowance, and issuance of a Notice of Allowance of claims is earnestly and respectfully requested.

Respectfully submitted,

RAN ENTERPRISES, INC.

By: Van Dyke, Gardner, Linn & Burkhart, LLP

Dated: June 16, 2005

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